



**STATE OF TENNESSEE
DEPARTMENT OF HEALTH
ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL
Lab Services - Jackson Regional Lab
Jackson, TN 38301
731-426-0686

TDH: Lab Services KRL
Lab Services - Knoxville Regional Lab
Knoxville, TN 37920
865-549-5201

TDH: Lab Services NCL
Lab Services - Nashville Central Lab
Nashville, TN 37243
615-262-6300

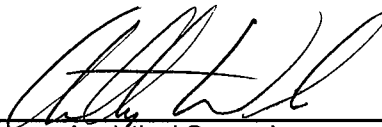
Sent To: Steve Roberts
TDEC-DWS
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00003416
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Supply

Billing Code: 327.39-12

This is to certify that the following results were determined using
good laboratory practices and in accordance with federal or state
approved methodologies.



Analytical Supervisor

Lab-Sample Number: K00003416001
Project Name:
Sample Description: Kingston WTP Finish
Sampler Project Name: Finish
Project Site No.:
Station No.:
Date/Time Collected: 02/22/2010 08:35
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Drinking Water
EFO: Knoxville
Sampling Agency: TDEC-DWS
Billing Code: 327.39-12
Send Report To: TDEC-DWS
Agency Invoiced: TDEC-DWS
Priority Date:
Date/Time Received: 02/23/2010 13:10
Received By: E McCrary

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

| TEST: Digestion Metals | | METHOD: EPA 200.2 | | | | |
|------------------------|------------|-------------------|-----|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Digestion Metals | 02/24/2010 | | | | A Wilson | 2/24/2010 |

| TEST: ICP-MS | | METHOD: EPA 200.8 | | | | |
|--------------|--------|-------------------|------|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Arsenic | U | µg/L | 0.93 | 5 | M Pattanayek | 2/24/2010 |
| Barium | 18 | µg/L | 2.5 | 5 | M Pattanayek | 2/24/2010 |
| Beryllium | U | µg/L | 0.11 | 1 | M Pattanayek | 2/24/2010 |
| Cadmium | U | µg/L | 0.41 | 1 | M Pattanayek | 2/24/2010 |
| Chromium | U | µg/L | 2.0 | 5 | M Pattanayek | 2/24/2010 |
| Cobalt | 0.047J | µg/L | 0.04 | 1 | M Pattanayek | 2/24/2010 |
| Lead | U | µg/L | 0.10 | 1 | M Pattanayek | 2/24/2010 |
| Manganese | U | µg/L | 0.42 | 1 | M Pattanayek | 2/24/2010 |
| Selenium | U | µg/L | 1.3 | 5 | M Pattanayek | 2/24/2010 |
| Thallium | U | µg/L | 0.03 | 1 | M Pattanayek | 2/24/2010 |
| Vanadium | U | µg/L | 3.4 | 5 | M Pattanayek | 2/24/2010 |

| TEST: Mercury | | METHOD: EPA 245.1 | | | | |
|---------------|--------|-------------------|-------|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Mercury | U | µg/L | 0.029 | 0.2 | A Wilson | 2/25/2010 |

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003416002
Project Name:
Sample Description: Kingston WTP Raw
Sampler Project Name: Raw
Project Site No.:
Station No.:
Date/Time Collected: 02/22/2010 08:40
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Drinking Water
EFO: Knoxville
Sampling Agency: TDEC-DWS
Billing Code: 327.39-12
Send Report To: TDEC-DWS
Agency Invoiced: TDEC-DWS
Priority Date:
Date/Time Received: 02/23/2010 13:10
Received By: E McCrary

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

| TEST: Digestion Metals | | METHOD: EPA 200.2 | | | | |
|------------------------|------------|-------------------|-----|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Digestion Metals | 02/24/2010 | | | | A Wilson | 2/24/2010 |

| TEST: ICP-MS | | METHOD: EPA 200.8 | | | | |
|--------------|--------|-------------------|------|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Arsenic | U | µg/L | 0.93 | 5 | M Pattanayek | 2/24/2010 |
| Barium | 20 | µg/L | 2.5 | 5 | M Pattanayek | 2/24/2010 |
| Beryllium | U | µg/L | 0.11 | 1 | M Pattanayek | 2/24/2010 |
| Cadmium | U | µg/L | 0.41 | 1 | M Pattanayek | 2/24/2010 |
| Chromium | U | µg/L | 2.0 | 5 | M Pattanayek | 2/24/2010 |
| Cobalt | 0.15J | µg/L | 0.04 | 1 | M Pattanayek | 2/24/2010 |
| Lead | 0.32J | µg/L | 0.10 | 1 | M Pattanayek | 2/24/2010 |
| Manganese | 26 | µg/L | 0.42 | 1 | M Pattanayek | 2/24/2010 |
| Selenium | U | µg/L | 1.3 | 5 | M Pattanayek | 2/24/2010 |
| Thallium | U | µg/L | 0.03 | 1 | M Pattanayek | 2/24/2010 |
| Vanadium | U | µg/L | 3.4 | 5 | M Pattanayek | 2/24/2010 |

| TEST: Mercury | | METHOD: EPA 245.1 | | | | |
|---------------|--------|-------------------|-------|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Mercury | U | µg/L | 0.029 | 0.2 | A Wilson | 2/25/2010 |

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003416003
Project Name:
Sample Description: Rockwood WTP Raw
Sampler Project Name: Raw
Project Site No.:
Station No.:
Date/Time Collected: 02/22/2010 09:10
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Drinking Water
EFO: Knoxville
Sampling Agency: TDEC-DWS
Billing Code: 327.39-12
Send Report To: TDEC-DWS
Agency Invoiced: TDEC-DWS
Priority Date:
Date/Time Received: 02/23/2010 13:10
Received By: E McCrary

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

| TEST: Digestion Metals | | METHOD: EPA 200.2 | | | | |
|------------------------|------------|-------------------|-----|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Digestion Metals | 02/24/2010 | | | | A Wilson | 2/24/2010 |

| TEST: ICP-MS | | METHOD: EPA 200.8 | | | | |
|--------------|--------|-------------------|------|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Arsenic | U | µg/L | 0.93 | 5 | M Pattanayek | 2/24/2010 |
| Barium | 27 | µg/L | 2.5 | 5 | M Pattanayek | 2/24/2010 |
| Beryllium | U | µg/L | 0.11 | 1 | M Pattanayek | 2/24/2010 |
| Cadmium | U | µg/L | 0.41 | 1 | M Pattanayek | 2/24/2010 |
| Chromium | U | µg/L | 2.0 | 5 | M Pattanayek | 2/24/2010 |
| Cobalt | 0.073J | µg/L | 0.04 | 1 | M Pattanayek | 2/24/2010 |
| Lead | 0.16J | µg/L | 0.10 | 1 | M Pattanayek | 2/24/2010 |
| Manganese | 18 | µg/L | 0.42 | 1 | M Pattanayek | 2/24/2010 |
| Selenium | U | µg/L | 1.3 | 5 | M Pattanayek | 2/24/2010 |
| Thallium | U | µg/L | 0.03 | 1 | M Pattanayek | 2/24/2010 |
| Vanadium | U | µg/L | 3.4 | 5 | M Pattanayek | 2/24/2010 |

| TEST: Mercury | | METHOD: EPA 245.1 | | | | |
|---------------|--------|-------------------|-------|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Mercury | U | µg/L | 0.029 | 0.2 | A Wilson | 2/25/2010 |

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003416004
Project Name:
Sample Description: Rockwood WTP Finish
Sampler Project Name: Finish
Project Site No.:
Station No.:
Date/Time Collected: 02/22/2010 09:15
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Drinking Water
EFO: Knoxville
Sampling Agency: TDEC-DWS
Billing Code: 327.39-12
Send Report To: TDEC-DWS
Agency Invoiced: TDEC-DWS
Priority Date:
Date/Time Received: 02/23/2010 13:10
Received By: E McCrary

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

| TEST: Digestion Metals | | METHOD: EPA 200.2 | | | | |
|------------------------|------------|-------------------|-----|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Digestion Metals | 02/24/2010 | | | | A Wilson | 2/24/2010 |

| TEST: ICP-MS | | METHOD: EPA 200.8 | | | | |
|--------------|--------|-------------------|------|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Arsenic | U | µg/L | 0.93 | 5 | M Pattanayek | 2/24/2010 |
| Barium | 24 | µg/L | 2.5 | 5 | M Pattanayek | 2/24/2010 |
| Beryllium | U | µg/L | 0.11 | 1 | M Pattanayek | 2/24/2010 |
| Cadmium | U | µg/L | 0.41 | 1 | M Pattanayek | 2/24/2010 |
| Chromium | U | µg/L | 2.0 | 5 | M Pattanayek | 2/24/2010 |
| Cobalt | U | µg/L | 0.04 | 1 | M Pattanayek | 2/24/2010 |
| Lead | U | µg/L | 0.10 | 1 | M Pattanayek | 2/24/2010 |
| Manganese | U | µg/L | 0.42 | 1 | M Pattanayek | 2/24/2010 |
| Selenium | U | µg/L | 1.3 | 5 | M Pattanayek | 2/24/2010 |
| Thallium | U | µg/L | 0.03 | 1 | M Pattanayek | 2/24/2010 |
| Vanadium | U | µg/L | 3.4 | 5 | M Pattanayek | 2/24/2010 |

| TEST: Mercury | | METHOD: EPA 245.1 | | | | |
|---------------|--------|-------------------|-------|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Mercury | U | µg/L | 0.029 | 0.2 | A Wilson | 2/25/2010 |

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected



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615-262-6300


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Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00003416
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Supply

Billing Code: 327.39-12

This is to certify that the following results were determined using
good laboratory practices and in accordance with federal or state
approved methodologies.


Analytical Supervisor

Lab-Sample Number: K00003416001

Project Name:

Sample Description: Kingston WTP Finish

Sampler Project Name: Finish

Project Site No.:

Station No.:

Date/Time Collected: 02/22/2010 08:35

Sampler's Name: Geoff Klein

County: ROANE - 73

Sample Matrix: Drinking Water

EFO: Knoxville

Sampling Agency: TDEC-DWS

Billing Code: 327.39-12

Send Report To: TDEC-DWS

Agency Invoiced: TDEC-DWS

Priority Date:

Date/Time Received: 02/23/2010 13:10

Received By: E McCrary

Field Determinations

pH:

Chlorine, residual:

Conductivity:

Temperature:

Dissolved Oxygen:

Other:

Flow: CFS

| TEST: Alkalinity, Total | | METHOD: SM 2320 B | | | | |
|-------------------------|--------|-------------------|-----|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Total Alkalinity | 59 | mg/L | 1 | 1 | M Chen | 2/25/2010 |

| TEST: Hardness, Calcium | | METHOD: SM 3500-Ca D | | | | |
|-------------------------|--------|----------------------|-----|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Calcium hardness | 48 | mg/L | 1 | 1 | M Chen | 2/24/2010 |

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00003416002
Project Name:
Sample Description: Kingston WTP Raw
Sampler Project Name: Raw
Project Site No.:
Station No.:
Date/Time Collected: 02/22/2010 08:40
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Drinking Water
EFO: Knoxville
Sampling Agency: TDEC-DWS
Billing Code: 327.39-12
Send Report To: TDEC-DWS
Agency Invoiced: TDEC-DWS
Priority Date:
Date/Time Received: 02/23/2010 13:10
Received By: E McCrary

Field Determinations

pH:

Chlorine, residual:

Conductivity:

Temperature:

Dissolved Oxygen:

Other:

Flow:

CFS

| TEST: Alkalinity, Total | | | METHOD: SM 2320 B | | | |
|-------------------------|--------|-------|-------------------|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Total Alkalinity | 56 | mg/L | 1 | 1 | M Chen | 2/25/2010 |

| TEST: Hardness, Calcium | | | METHOD: SM 3500-Ca D | | | |
|-------------------------|--------|-------|----------------------|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Calcium hardness | 47 | mg/L | 1 | 1 | M Chen | 2/24/2010 |

J - Estimated value between MDL and MQL**MDL - Method Detection Limit****MQL - Method Quantitation Limit****U - Undetected**

Lab-Sample Number: K00003416003
Project Name:
Sample Description: Rockwood WTP Raw
Sampler Project Name: Raw
Project Site No.:
Station No.:
Date/Time Collected: 02/22/2010 09:10
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Drinking Water
EFO: Knoxville
Sampling Agency: TDEC-DWS
Billing Code: 327.39-12
Send Report To: TDEC-DWS
Agency Invoiced: TDEC-DWS
Priority Date:
Date/Time Received: 02/23/2010 13:10
Received By: E McCrary

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

| TEST: Alkalinity, Total | | METHOD: SM 2320 B | | | | |
|-------------------------|--------|-------------------|-----|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Total Alkalinity | 93 | mg/L | 1 | 1 | M Chen | 2/25/2010 |

| TEST: Hardness, Calcium | | METHOD: SM 3500-Ca D | | | | |
|-------------------------|--------|----------------------|-----|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Calcium hardness | 59 | mg/L | 1 | 1 | M Chen | 2/24/2010 |

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003416004
Project Name:
Sample Description: Rockwood WTP Finish
Sampler Project Name: Finish
Project Site No.:
Station No.:
Date/Time Collected: 02/22/2010 09:15
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Drinking Water
EFO: Knoxville
Sampling Agency: TDEC-DWS
Billing Code: 327.39-12
Send Report To: TDEC-DWS
Agency Invoiced: TDEC-DWS
Priority Date:
Date/Time Received: 02/23/2010 13:10
Received By: E McCrary

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

| TEST: Alkalinity, Total | | METHOD: SM 2320 B | | | | |
|-------------------------|--------|-------------------|-----|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Total Alkalinity | 82 | mg/L | 1 | 1 | M Chen | 2/25/2010 |

| TEST: Hardness, Calcium | | METHOD: SM 3500-Ca D | | | | |
|-------------------------|--------|----------------------|-----|-----|--------------|-----------|
| ANALYTE | RESULT | UNITS | MDL | MQL | ANALYZED BY: | DATE |
| Calcium hardness | 57 | mg/L | 1 | 1 | M Chen | 2/24/2010 |

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected